

# **Nuclear Material Stabilization and Disposition (RL-0011)**

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*Completed Legacy Holdup Removal  
Activities In Glove Box HA-9E*



*Completed 241-Z Raised Work Deck  
Installation*

## Overview

This section addresses work in Project Baseline Summary RL-0011, *Nuclear Material Stabilization and Disposition*.

NOTE: Unless otherwise noted, all information contained herein is as of the end of February 2005.

## Notable Accomplishments

### Disposition the Plutonium Finishing Plant (PFP) Facility

**Legacy Holdup:** Disposition of 61 percent of legacy plutonium holdup material was completed.

The sixth of ten equal increments to disposition the PFP's legacy holdup material by September 30, 2005, was completed February 23, 2005, five days ahead of schedule.

Legacy plutonium hold-up removal activities have been completed in glove box HA-9E.

**234-5Z:** Completed decontamination of another seven gloveboxes/hoods to low level waste (LLW) criteria bringing the total to 21 decontaminated to LLW criteria.

The initial ten percent increment to "Remove or Decontaminate 189 Plutonium Gloveboxes and Hoods in the 234-5Z Plutonium Processing Facility" was completed on February 14, 2005; approximately three and one-half months ahead of the May 31, 2005, baseline commitment.

**241-Z:** The Washington State Department of Ecology issued two letters on February 12, 2005:

- Accepting closure certification of the HA-20MB Glovebox;
- Providing concurrence that Interim Milestone M-083-31, "Discontinue Waste Discharges from the 241-Z Tanks to Tank Farms Via Existing Lines", was also completed.

Recovery actions in response to the observed structural degradation of a cover block over the 241-Z D-8 vault were completed in February with the installation of a raised work deck.

The initial cell D8 characterization entry was completed and significant D-8 vault fogging was completed to allow continued pit entries.

**236-Z:** A re-evaluation of materials removed to date and what remains in the Plutonium Reclamation Facility has resulted in the facility being down-graded to a Category III facility.

## Issues

**Special Nuclear Material (SNM) De-inventory Delay:** The Department of Energy (DOE) authorization to allow shipment of Hanford plutonium material to the Savannah River Site (SRS), due by August 30, 2004, has not been received. The continued delay in authorization to ship will result in a delay in completion of the SNM de-inventory of the PFP complex. The Record of Decision, a key document required by DOE prior to issuing the authorization for Hanford to ship SNM to SRS, is not expected in FY 2005. New guidance is needed on a de-inventory path to correct de-inventory delays.

## FY 2005 Funds vs. Spend Forecast (\$M)

	Projected FY 2005 Funding	FY 2005 Fiscal Year Spend Forecast	Variance
Nuclear Materials Stabilization & Disposition	\$ 213.9	\$ 202.7	\$ 11.2

## FY 2005 Schedule/Cost Performance (\$M)

	Budgeted Cost of Work Scheduled	Budgeted Cost of Work Performed	Actual Cost of Work Performed	Schedule Variance \$	Schedule Variance %	Cost Variance \$	Cost Variance %	Budget At Completion
Nuclear Materials Stabilization & Disposition	\$78.0	\$72.6	\$69.6	-\$5.4	-6.9%	\$3.0	4.2%	\$207.4

Numbers are rounded to the nearest \$0.1M and include the closure services allocation.

**Schedule Performance (-\$5.4M/-6.9%):** Primary contributors to the unfavorable schedule performance include:

- Legacy Plutonium Holdup difficulties in plug removal from 26" process vacuum line; high dose rates within glovebox HA-9A;
- Deactivation and Decommissioning (D&D) activities behind schedule due to delays in 232-Z, 241-Z and 236-Z;
- Delays in solid waste disposal activities due to delayed D&D activities. This negative schedule variance is partially offset by ahead-of-schedule progress on activities to transition 234-5Z;
- Delay in de-inventory awaiting authorization to ship;
- Delay in startup of box counter.

**Cost Performance (+\$3.0M/+4.2%):** Primary contributors to the favorable cost variance include:

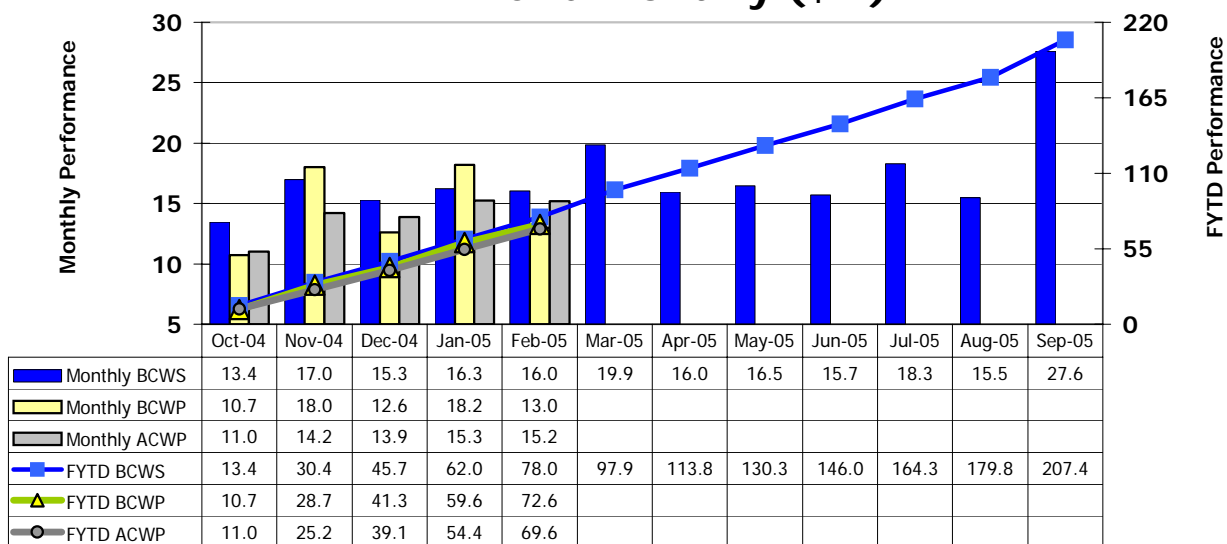
- Delayed billing for solid waste disposition;
- Use of existing lab and SNM de-inventory teams to accelerate 234-5Z process equipment removal;
- Efficiencies in 236-Z project support and canyon tank planning and procurement; and
- Lower cost in transition operations support due to reduced staffing levels.

These positive cost variances are partially offset by:

- Increased costs in 232-Z and 241-Z D&D work to support recovery actions from earlier schedule delays;
- Fissile material movement outage and use of overtime to recover schedule in legacy plutonium holdup removal and disposition activities; and
- Increased Regulatory Compliance support.

## FY 2005 Schedule/Cost Performance, continued

### Performance Analysis FYTD and Monthly (\$M)



## Milestone Achievement

Milestone Title	Type	Due Date	Actual Date	Forecast Date	Status/ Comments
Discontinue Waste Discharges from the 241-Z Tanks to Tank Farms	TPA PI	6/30/05	12/13/2004	-----	Complete
Complete Deinventory of DOE-STD-3013 Containers & Unirradiated Fuel by Shipment to SRS or Other Approved Location	PI	9/30/06		TBD	To Be Rebaselined
Remove and Disposition Pu Holdup in Process Equipment at PFP	PI	9/30/05		7/31/05	Ahead of Schedule
Transition 10 Facilities to Slab-on-Grade	PI	9/30/05		6/30/05	Ahead of Schedule
Decontaminate Glovebox HA-20MB	PI	3/31/06	10/28/2004	-----	Complete
Complete 100% Legacy Pu Holdup Removal and Disposition	TPA	9/30/06		7/31/05	Ahead of Schedule
Transition 232-Z Bldg Incinerator to Slab-on-Grade	PI TPA	3/31/06 9/30/06		6/19/06	Behind Schedule Ahead of Schedule
Remove Remaining SNM From PFP Such That Protected Area Not Required	PI	9/30/06		TBD	To Be Rebaselined
Disposition Miscellaneous PFP Nuclear Materials	PI	9/30/06		9/30/06	On Schedule
Transition 241-Z/ZA Facility to Demolition Ready	PI	9/30/06		9/30/06	On Schedule
Remove or Decontaminate 236-Z Pencil Tanks	PI	9/30/06		9/30/06	On Schedule
Remove or Decontaminate the 236-Z Process Equipment in Rooms 50 & 60	PI	9/30/06		9/30/06	On Schedule
Remove or Decontaminate the Remaining 236-Z Process Equipment	PI	9/30/06		9/30/06	On Schedule
Remove or Decontaminate 189 Gloveboxes and Hoods in 234-5Z	PI	9/30/06		9/30/06	On Schedule
Complete 242-Z Initial Entry & Characterization	PI	9/30/06		9/30/06	On Schedule
Cleanout Pu & Am Contaminated Gloveboxes and Tanks in 242-Z	PI	9/30/06		9/30/06	On Schedule
Dispose of Approximately 600 Pu Nitrate Containers at PFP	PI	9/30/06		9/30/06	On Schedule